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## PATENT ABSTRACTS OF JAPAN

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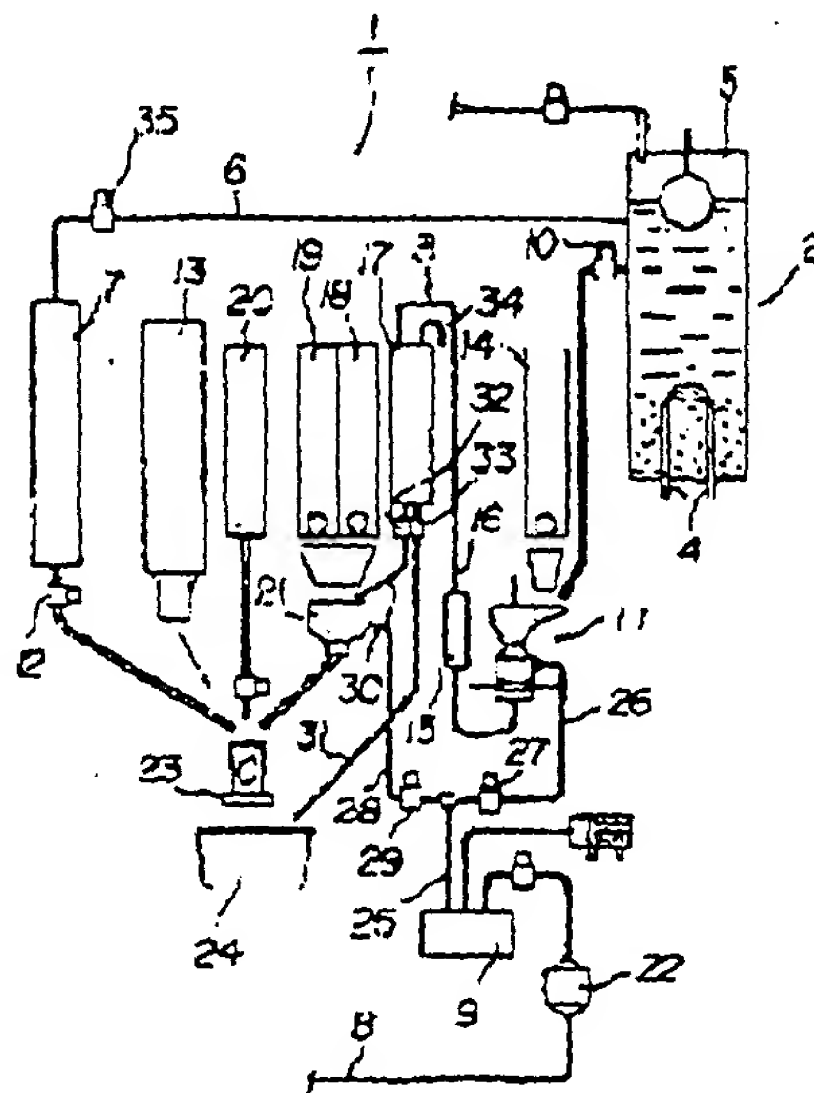
(21) Application number : 07-330579 (71) Applicant : SANYO ELECTRIC CO LTD  
(22) Date of filing : 19.12.1995 (72) Inventor : TAKEDA KOJI  
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(54) BEVERAGE STOCK DEVICE AND AUTOMATIC BEVERAGE VENDING MACHINE PROVIDED WITH THE SAME

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a beverage stock device for providing high-quality beverage by stocking the beverage extracted from raw materials and an automatic beverage vending machine, which is provided with this beverage stock device, for always efficiently vending and providing high-quality merchandise.

SOLUTION: This vending machine is provided with the beverage stock device for extracting the beverage from the raw materials of beverage and hot water with high concentration, cooling it by a cooler 15, supplying it into a tank 12 and stocking it while controlling the temperature from 63° C to 65° C. The tank 17 in this device is provided with a vending means 32 to be operated when vending the beverage and/or an abandoning means 33 to be operated when abandoning the beverage, and a hot water tank 7 for stocking hot water for diluting the high-concentration beverage, and this high-concentration beverage and this hot water are injected/mixed in a prescribed quantity cup and vent.



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## DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention relates to the drink vending machine equipped with drink storage equipments, such as coffee, and it in Seki.

[0002]

[Description of the Prior Art] Conventionally, it is constituted so that it may pour into a cup in this seed vending machine after extracting drinks, such as coffee, from raw materials, such as coffee beans, and mixing with other sugar or milk, as shown in JP.4-354912,A as an extractor for example. and it may sell. moreover, the drink extracted with the vending machine by regulation of Food Sanitation Law until now -- \*\*\*\*\* -- since it was impossible to have saved beforehand, and to have placed and sold -- the former -- every sale -- 1 -- the method which extracts and sells coffee from cup \*\* \*\*\*\*\* was taken

[0003] Although there is an advantage which can extract and sell coffee fresh each time according to the extraction for every starting sale, as for a time (40 seconds/(cup)) customer comparatively long by sale. for this reason, for extraction, time must wait from selection of goods. Moreover, since the consumption of articles of consumption, such as a paper filter required for extraction, also increased, there was a problem an efficient sale becomes impossible.

[0004] By revision of aforementioned Food Sanitation Law, specified quantity extraction is carried out beforehand, a drink is saved and placed also in this seed vending machine. and it becomes possible to take the method which pours into a cup and is sold for every sale. the equipment which only the specified quantity packs coffee beforehand, extracts, keeps warm and places this by the drink tank, and discharges one cup from a drink tank for every sale is proposed -- \*\*\*\* (Japanese-Patent-Application-No. No. 244265 [ six to ] specification) -- [0005] However, the extracted coffee will receive various kinds of change into a storage by heat insulation, and quality will deteriorate. Therefore, although various kinds of degradation preventing methods, such as replacing by inert gas, were devised, there was a problem that not a good method but degradation will advance. Although the method of warming the whole tub of storage equipment with a water bath is also considered in order to improve this problem, cost is high and there is a problem to which structure also becomes complicated. If the drink to apply and which deteriorated is sold, great damage will be inflicted on a customer. and since there is a problem of losing the trust by the side of sale, good storage equipment is called for strongly.

[0006] The vending machine which has the function to throw away coffee after fixed time in JP.7-67779,A is proposed. It is made to, discard the coffee which carried out the passage of time to some extent after extraction at the teahouse etc. conventionally on the other hand. However, it is uneconomical to throw away after fixed time.

[0007]

[Problem(s) to be Solved by the Invention] Even if the purpose of this invention controls, stores and puts the coffee beforehand extracted from the raw material on the specified quantity and predetermined temperature based on the starting conventional situation, it is offering the drink storage equipment which can offer the drink of the quality of an excellent article. Moreover, the purpose of this invention is

offering the drink vending machine which can always make selling offer of the goods of the quality of an excellent article efficiently, when controlling, storing, placing and supplying the coffee beforehand extracted from the raw material to the specified quantity and predetermined temperature.

[0008]

[Means for Solving the Problem] In order that this invention person etc. may solve the above-mentioned trouble, as a result of inquiring wholeheartedly, degradation cannot occur easily the high concentration drink extracted from the raw material.

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EFFECT OF THE INVENTION

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[Effect of the Invention] According to the drink storage equipment of invention of a claim 1, a health top is also safe and degradation of quality, such as a taste of the stored high concentration drink and aroma, can be suppressed.

[0039] When according to the drink storage equipment of invention of a claim 2 the amount of the high concentration drink in a tank was lost or it decreases, The signal from a sensor is sent to a control unit, and if high concentration extraction of the drink is carried out, cool with the aforementioned cooling system, and this high concentration drink is supplied in the aforementioned tank, and is controlled and stored in 63-65 degrees C and this is again repeated from a drink raw material and hot water according to the signal from this control unit, it can conform to sale.

[0040] According to the drink vending machine of invention of a claim 3, a 63-65-degree C high concentration drink is diluted with boiling water, and delicious coffee 80 degrees C or more can be offered. Since it pours in and mixes and delicious coffee 80 degrees C or more can be sold to a predetermined amount cup with the boiling water which carries out high concentration extraction of the drink, cools with the aforementioned cooling system, supplies this high concentration drink in the aforementioned tank, controls and stores it in 63-65 degrees C from a drink raw material and hot water, and was stored in the hot water tank based on predetermined selling instructions, the time which sale takes is shortened and an article of consumption can be used efficiently. Since it has drink storage equipment according to claim 1, as mentioned above, a sanitation top is also safe and degradation of quality, such as a taste of a high concentration drink and aroma, can be suppressed.

[0041] According to the drink vending machine of invention of a claim 4, the coffee extracted from the raw material with which kinds differ can be sold with one vending machine.

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CLAIMS

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[Claim(s)]

[Claim 1] The drink storage equipment which is drink storage equipment equipped with a discharge means discharge the tank for storing a supply means and a drink equipped with the cooling system for cooling a drink, and the drink in this tank, and a heating means heat the aforementioned tank, and carries out | carrying out the high-concentration extraction of the drink, cooling this high-concentration drink with the aforementioned cooling system, supplying in the aforementioned tank, and controlling and storing in 63-65 degrees C from a drink raw material and hot water, and | as the feature.

[Claim 2] Drink storage equipment according to claim 1 characterized by forming the sensor for detecting the amount of the high concentration drink in the aforementioned tank.

[Claim 3] I have a claim 1 or drink storage equipment according to claim 2, and the tank of this equipment is equipped with an abandonment means to operate at the time of abandonment of the selling means and/or drink which operate at the time of sale of a drink. And the drink vending machine characterized by pouring in and mixing the boiling water stored in the high concentration drink which was equipped with the hot water tank which stores the boiling water for diluting a high concentration drink, and was stored in the aforementioned tank, and the aforementioned hot water tank, and selling it to a predetermined amount cup.

[Claim 4] The drink vending machine according to claim 3 characterized by having two or more claims 1 or drink storage equipment according to claim 2.

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PRIOR ART

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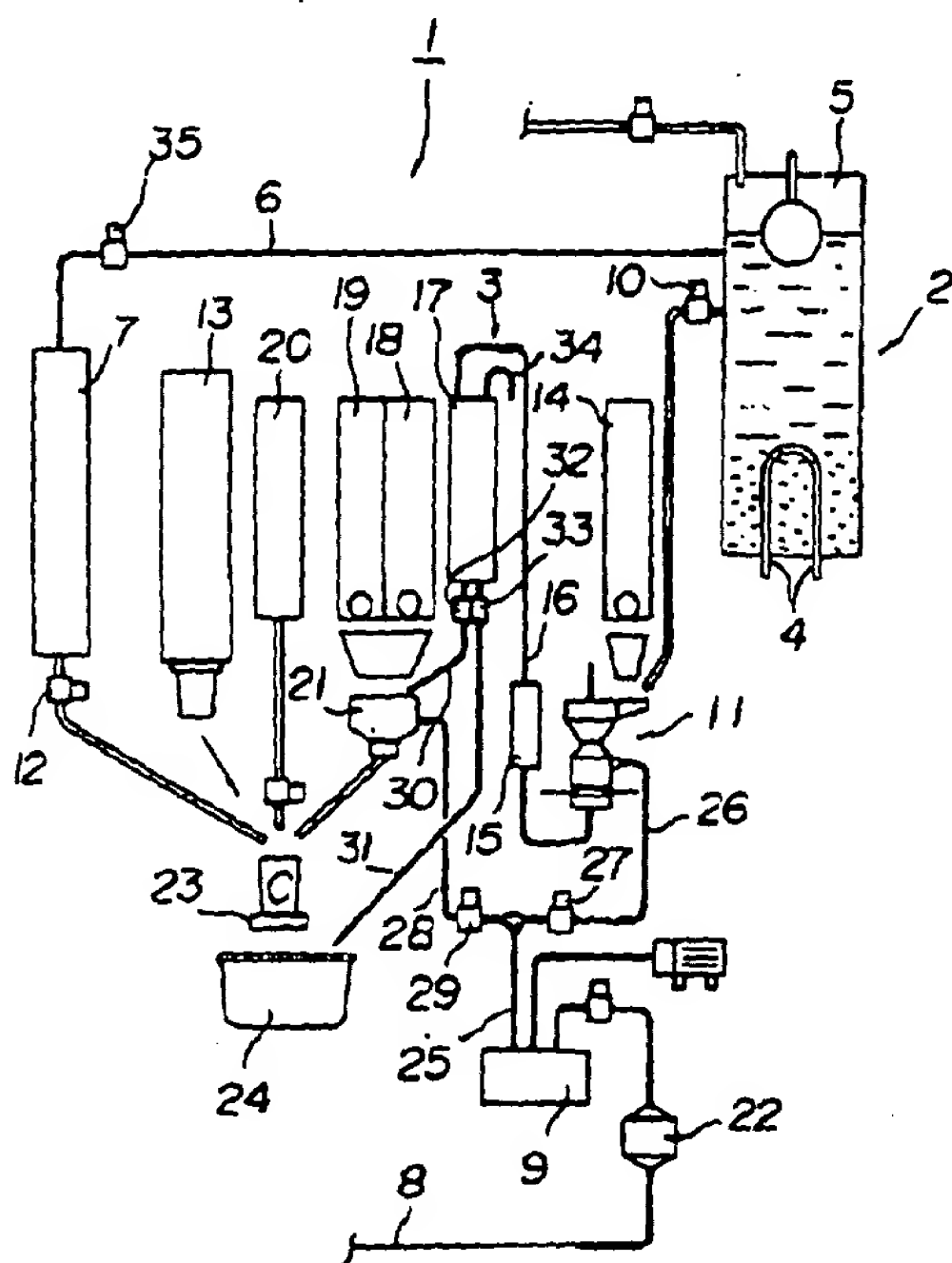
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[Translation done.]

Drawing selection [Representative drawing]



[Translation done.]